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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,689	10/21/2003	David J. Monnie	KLR/KAR:8474.0003	6131

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CHERNOFF, VILHAUER, MCCLUNG & STENZEL
1600 ODS TOWER
601 SW SECOND AVENUE
PORTLAND, OR 97204-3157

EXAMINER	
PRICE, NATHAN E	

ART UNIT	PAPER NUMBER
2194	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/690,689	MONNIE ET AL.	
	Examiner	Art Unit	
	Nathan Price	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 May 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to communications received 10 May 2007. Claims 1 – 45 are pending. Previous objections and rejections not included in this Office Action have been withdrawn.

Response to Arguments

2. Applicant's arguments filed 10 May 2007 have been fully considered but they are not persuasive.

3. Regarding rejections based on the use of trademarks/trade names, if future versions or products associated with the trademarks/trade names include new or additional features or technologies, then it is not clear that Applicant's disclosure provides sufficient enablement. Therefore, it must be clear what versions and products are being identified by Applicant's use of trademarks/trade names.

4. In response to applicant's arguments regarding rejections under 35 U.S.C. 101, it appears that the claims do not include hardware necessary to realize the functionality of the software. Although the systems are for concurrent operation of plural computer applications, the claims do not appear to recite the plural computer applications concurrently operating in the systems.

5. Regarding rejections under 35 U.S.C. 103(a), Applicant argues the combination of Cranston and Galluscio would not have been obvious because of risk associated with applications sharing memory (see remarks p. 14). However, each of these references individually includes risks associated with applications sharing memory.

6. Applicant argues the references fail to teach the claimed updateable objects (see remarks p. 17). However, Galluscio teaches updating the data (col. 2 lines 19 – 21; col. 3 lines 14 – 16, 45 – 55). When using Java (see the rejection of claim 1), it is obvious to one of ordinary skill in the art to use objects as the parameters and data taught by Cranston and Galluscio (Cranston: col. 3 lines 23 – 26; Galluscio: col. 2 lines 19 – 21; col. 3 lines 14 – 16, 45 – 55).

7. Applicant argues one of ordinary skill in the art would not have been motivated to combine the references because, for example, they use different techniques to address memory locations. However, one of ordinary skill in the art is capable of modifying the specifically disclosed addressing techniques so that features of each teaching can be adopted.

8. Regarding claims 13, 28 and 43, Cranston teaches communications processing (col. 3 lines 19 – 21).

9. Regarding claims 14, 29 and 44, Cranston teaches copying parameters and data into the shared memory (col. 3 lines 23 – 26).

10. Regarding claims 7, 22 and 37, Examiner is not mapping the DLLs to the claimed shared object space. Cranston combined with Galluscio teaches sharing objects and programs developed in different languages including C, C++ and Java. The Native Method Interface enables Java to use C and C++ programs.

Claim Objections

11. Claims 10, 25 and 40 are objected to because of the following informalities:

There is insufficient antecedent basis for "said non-object oriented program" in claims 10, 25 and 40.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 6 – 8, 12, 21 – 23, 27, 36 – 38 and 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6 – 8, 12, 21 – 23, 27, 36 – 38 and 42 contain the trademark/trade name Java and/or Sun Microsystems. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe a programming environment or a company and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

13. Claims 1 – 45 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1 – 45 appear to recite elements that can be implemented in software alone and are therefore rejected as software, per se. See MPEP 2106.01. It appears that the claims do not include hardware necessary to realize the functionality of the software. The claims are therefore rejected as being directed toward non-statutory subject matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. Claims 1 – 4, 6, 9 – 11, 13 – 19, 21, 24 – 26, 28 – 34, 36, 39 – 41 and 43 – 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cranston et al. (US 6,829,769 B2; hereinafter Cranston) in view of Galluscio et al. (US 7,152,231 B1; hereinafter Galluscio).

15. As to claim 1, Cranston teaches a system for the concurrent operation of plural computer applications, said system comprising:

(a) a shared object space selectively connectable to each said plural computer application, said shared object space capable of storing a plurality of updateable objects accessible to each said plural computer application when connected to said shared object space [col. 3 lines 14 – 36]; and

(b) a queue associated with said shared object space and capable of storing references to individual said objects received from at least one of said plural computer applications and capable of releasing said references stored in

said queue to at least one of said plural computer applications [col. 3 lines 14 – 36].

16. Cranston fails to specifically teach that each said computer application operating in its own virtual machine. However, Galluscio teaches or at least implies that each said computer application operating in its own virtual machine by suggesting the use of Java [col. 6 lines 5 – 17]. It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to combine these teachings because Cranston does not specify a programming language and Galluscio lists languages [col. 6 lines 5 – 17] that may be used in a similar communication system that uses a shared memory region and message queue [abstract].

17. As to claim 2, Cranston teaches the queue is a predefined type [col. 3 lines 14 – 36].

18. As to claim 3, Cranston teaches the queue is customized [col. 8 lines 28 – 48].

19. As to claim 4, Cranston modified by Galluscio teaches the queue is a "first-in-first-out" queue [Galluscio: col. 5 lines 47 – 56].

20. As to claim 6, Cranston modified by Galluscio at least implies each said virtual machine is a Java virtual machine [Galluscio: col. 6 lines 5 – 17].

21. As to claim 9, Cranston modified by Galluscio at least implies the shared object space is operably connectable to a non-object-oriented application [Galluscio: col. 6 lines 5 – 17].

22. As to claim 10, Cranston modified by Galluscio teaches the non-object oriented program is a "C" program [Galluscio: col. 6 lines 5 – 17].

23. As to claim 11, Cranston modified by Galluscio teaches access to at least one of said plurality of objects by said plural computer applications is synchronized [Galluscio: col. 6 line 58 – col. 7 line 4].

24. As to claim 13, Cranston teaches the plural computer applications pertain to at least one of: (a) stock trading; (b) communications processing; and (c) internet services [col. 3 lines 14 – 36].

25. As to claim 14, Cranston teaches at least one of said plurality of objects is copy shared among said plural applications [col. 3 lines 14 – 36].

26. As to claim 15, Cranston modified by Galluscio teaches at least one of said plurality of objects is direct shared among said plural applications [Galluscio: col. 4 lines 28 – 46].

27. As to claim 16, see the rejection of claim 1. Cranston further teaches the queue receiving said references from a first set of said applications and releasing said references to a second set of applications [col. 3 lines 14 – 36].

28. As to claims 17– 19, 21, 24 – 26, 28 – 30, see the rejection of claims 2 – 4, 6, 9 – 11, 13 – 15.

29. As to claim 31, see the rejection of claim 1. Cranston further teaches the at least one application both storing said references in said queue and receiving said references from said queue [col. 3 lines 14 – 36].

30. As to claims 32 – 34, 36, 39 – 41, 43 – 45, see the rejection of claims 2 – 4, 6, 9 – 11, 13 – 15.

31. Claims 5, 20 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cranston (US 6,829,769 B2) in view of Galluscio (US 7,152,231 B1) as applied to claims 1, 16 and 31 above, and further in view of Martin et al. (US 7,017,160 B2; hereinafter Martin).

32. As to claims 5, 20 and 35, Cranston fails to specifically teach a "last-in-first-out" queue. However, Martin teaches the queue is a "last-in-first-out" queue [col. 5 lines 39

– 58]. It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to combine these teachings because Cranston teaches using queues to manage object sharing [col. 4 lines 1 – 16] and Martin teaches other structures, such as a FIFO, can be used [col. 5 lines 39 – 58].

33. Claims 7, 8, 12, 22, 23, 27, 37, 38 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cranston (US 6,829,769 B2) in view of Galluscio (US 7,152,231 B1) as applied to claims 1, 6, 16, 21, 31 and 36 above, and further in view of Jaworski (Jaworski, Jamie, "Java 1.1 Developer's Guide," Second Edition, Sams.net Publishing, 1997; pages 3-10 and 983-990.).

34. As to claims 7, 22 and 37, Cranston fails to specifically teach a Native Method Interface. However, Jaworski teaches the shared object space is connected to each said virtual machine through a Native Method Interface [page 984, Java Native Interface]. It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to combine these teachings because Cranston combined with Galluscio teaches sharing objects with programs developed in different languages including C, C++ and Java and provides an example in C [Galluscio: col. 6 lines 5 – 30] and Jaworski teaches how to enable Java to use C and C++ programs for features not available in Java [page 984].

35. As to claims 8, 23 and 38, Cranston modified by Jaworski teaches the system includes a default directory with a native language library file [Jaworski: page 989, Creating a Shared Library].

36. As to claims 12, 27 and 42, Cranston modified by Jaworski at least implies the shared object space is operably connectable to a Sun Microsystems virtual machine [Jaworski: page 5 ¶ 3; page 6 ¶ 5 – 8].

Conclusion

37. The prior art made of record on the P.T.O. 892 that has not been relied upon is considered pertinent to applicant's disclosure. Careful consideration of the cited art is required prior to responding to this Office Action, see 37 C.F.R. 1.111(c).

38. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Price whose telephone number is (571) 272-4196. The examiner can normally be reached on 6:30am - 3:00pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NP

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100